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ABSTRACT

During fiscal year (FY) 1993, North Carolina's Division of Vocational Rehabilitation Services expended $76.2 million to provide vocational rehabilitation (VR) services to 59,821 North Carolinians. These VR services were delivered by 378 caseload-carrying counselors and their required administrative support in 32 unit offices. Of 13,781 persons whose program participation was terminated in FY1993, 8,448 were rehabilitated (a 61.3% program effectiveness rate for the year). At 12 months after closure, the percentage of former VR clients whose families received public assistance had decreased and the percentage of former VR clients in paid employment increased significantly. Participants spent an average of 18.5 months in the total VR process (from eligibility determination through plan completion). The overall program cost-benefit was calculated at 1:1.04. An overwhelming majority of VR services clients reported general satisfaction with VR services and VR counselor performance. (Appendixes constituting approximately 50% of this report contain the following: target population standard, summary of sources/expenditure of funds, six program evaluation standards, data for 8,448 rehabilitated clients, sample satisfaction and benefits retention questionnaires, characteristics of populations from which survey samples were drawn, and basis of comparison of consumer earnings with general population earnings. Twenty-three tables/figures are included. Contains 15 references. (MN)

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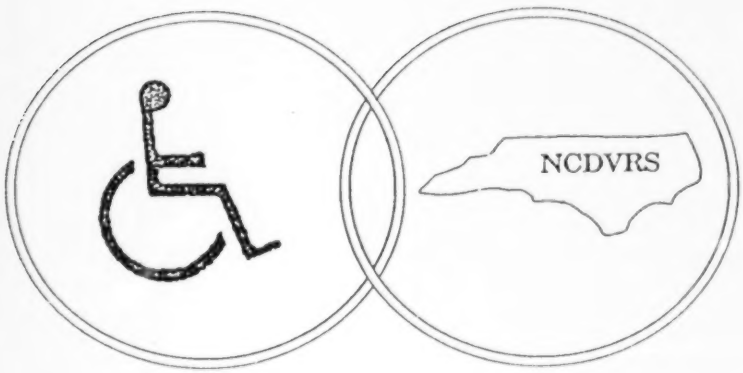
VOCATIONAL REHABILITATION RECORD

1993

ED 378 378



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D R A F T

North Carolina Division of Vocational Rehabilitation Services

Program Evaluation Report (2337F)

1993

Prepared by

Planning and Evaluation Services Section Staff

of Vocational Rehabilitation Services,

a Division of the North Carolina

Department of Human Resources

May 1994

ABSTRACT

This Program Evaluation Report addresses the North Carolina Division of Vocational Rehabilitation Services target population, levels of effort, effectiveness, timeliness of services, cost-effectiveness, overall program cost-benefit and consumer satisfaction with VR services and counselor performance. Target population is defined as persons who report a "limitation in major activity" due to a "chronic condition", i.e., about 699,000 North Carolinians. During State Fiscal Year (SFY) 1993, the effort required to address the needs of 59,821 people involved 378 authorized and funded caseload carrying counselor positions with required administrative support at the State Office and in 32 unit offices. Total program expenditure was 76.2 million dollars (Title I and Supported Employment). Of 13,781 persons whose program participation was terminated, 8,448 were rehabilitated, yielding a program effectiveness rate of 61.3%. At twelve months post-closure, the percent of former consumers whose families received public assistance decreased. The percent in paid employment, increased significantly, as did average weekly earnings for those with earnings. Participants spent an average of 18.5 months in the total VR process which included eligibility determination, plan development, implementation and completion. Based on a total case service cost of $19.9 million the average purchased service cost was computed to be $2,353.60 for SFY 1993. Computing overall program cost-benefit yielded a ratio of 1:1.04 or $.04 in increased earnings for every $1 of program monies spent based on the consumers' first year projected annual income and total program cost for SFY 1993. A 1980 cost-benefit analysis of the VR program in North Carolina, using the "human capital approach" yielded ratios from 1:1.22 ($1.22 returned to the economy for every $1 expended) to 1:20.50 depending on the mix of consumer characteristics (Heaslet, 1980). An overwhelming majority of persons rehabilitated and persons non-rehabilitated reported general satisfaction with VR services and with VR counselor performance.

PROGRAM EVALUATION:
THE NORTH CAROLINA DIVISION OF VOCATIONAL REHABILITATION SERVICES

Introduction

Since Federal fiscal year 1975-76, the North Carolina Division of Vocational Rehabilitation (VR) Services has collected data for the purpose of Program Evaluation. Pursuant to publication of performance standards in the Federal Register (Jones, 1988) annual reports have addressed at least in part the following standards and data elements:

(1) **ENSURE THAT THE PROGRAM IS SERVING THE ELIGIBLE DISABLED POPULATION AND TO INSURE THAT THESE SERVICES ARE PROVIDED IN AN EQUITABLE MANNER.**

a. Estimate of total population eligible for VR services.

(2) **INSURE THAT REHABILITATED INDIVIDUALS ARE PLACED IN GAINFUL EMPLOYMENT SUITABLE TO THEIR CAPABILITIES.**

a. Number who received training related to the job family in which they were placed (as identified by the first digit of the Dictionary of Occupational Titles).

(5) **INSURE THAT MANAGEABLE SIZE CASELOADS ARE MAINTAINED.**

a. Number of counselor man years.
b. Number of authorized and funded full-time caseload carrying counselor positions.
c. Number and percent of rehabilitation counselor turnover.
d. Describe the process of the following functions: 1. caseload Management, 2. Caseload review, 3. Caseload monitoring.

(6) **MEASURE EXTENT TO WHICH INDIVIDUALS CLOSED REHABILITATED RETAIN THE BENEFITS OBTAINED FROM THE REHABILITATION PROCESS.**

a. Percent of rehabilitated persons still employed at time of follow-up.
b. Percent with earnings at follow-up, mean earnings at follow-up, and mean earnings for all with or without earnings at follow-up.
c. Percent increase or decrease of earnings at closure to earnings at follow-up.
d. Percent of succesful program completers (status 26) unemployed at follow-up for: less than 1 month, 1-3 months, 4-6 months, 7-12 months, more than 12 months.
e. Employment record of program participants: To determine whether the rehabilitation system is achieving its stated objective, it is necessary to ascertain whether rehabilitated persons retain over time, benefits derived from the rehab system.
f. Degree of consumer satisfaction with programs and services.

(7) INSURE THAT THE NEED FOR POST-EMPLOYMENT (POST-CLOSURE) SERVICES IS SATISFIED.

a. Percent of former participants receiving the following types of post-employment services of the total receiving post-employment services:

1. Diagnostic and evaluation
2. Restoration (physical or mental)
3. Training
4. Guidance and counseling only
5. Maintenance
6. Transportation
7. Other

(9) INSURE THAT CONSUMERS ARE SATISFIED WITH THE VOCATIONAL REHABILITATION SERVICES AS DEVELOPED WITH THE COUNSELOR.

State DVRS's were required to submit Program Evaluation reports to the Rehabilitation Services Adminitration annually until 1978, when the US Congress dropped the reporting requirement from VR legislation. Nonetheless, the NCDVRS has continued to use selected standards in its annual self-review.

The main thrust of these "standards" can be summarized in the following objectives:

(a) Estimate the VR target population, i.e., potential consumers of VR services
(b) Define key effort factors in meeting the needs of persons who are eligible for VR services
(c) Measure the extent to which persons who successfully complete their VR program, retain the benefits obtained
(d) Measure program effectiveness in meeting needs of eligible persons with disabilities
(e) Measure program timeliness in meeting needs of eligible persons with disabilities
(f) Measure consumer satisfaction with services.

This report draws from both State Fiscal year and Federal Fiscal year statistics. Benefits retention and Satisfaction Survey measures reflect only Federal Fiscal year data.

Target Population

It is estimated that of 6.8 million North Carolinians, about 4.7 million are age 14-64. (State Demographer, 1994). Of that number, approximately 699,000 have a "limitation in major activity", i.e., report some degree of mental and/or physical disability (NCDVRS, 1994). At any given time, about 205,000 people's lives have been or are being directly affected by the NCDVRS. This means they either have been served, are being served, or are being evaluated to determine eligibility for services. This represents about 29% of those who report having a disabling condition. See Appendix A for a detailed discussion of derivation of estimates and rationale for using the disability concept, "Limiting Health Condition" which limits individuals in their "major activity."

Key Effort Factors

Key indicators of effort required to meet the needs of 59,821 people on Agency caseloads during State FY '93 (applicants, active cases, and closed cases) follow:

- Number authorized and funded full time caseload carrying counselor positions: 378
- Number caseload carrying counselor man-years: 354
- Number Unit Offices: 32
- Dollars Expended for Total Program (Title I + Supported Employment): $76,192,914

See Appendix B for a detailed breakdown of expenditures and Appendix C, Standard No. 5 for additional notes pertaining to effort.

Effectiveness

The primary measure of program effectiveness is percent of persons served who experience rehabilitation. In State FY '93, 13,781 persons concluded their rehabilitation program (rehabilitated and not rehabilitated), 61.3% of whom experienced rehabilitation (see Table 1). About 59% of the individuals placed have jobs that are consistent with VR training received (see "Standard No. 2", Appendix C). Refer to Appendix D for a complete list of types of jobs obtained by persons rehabilitated.

Table 1

Rehabilitation rate as a measure of effectiveness for the North Carolina Division of Vocational Rehabilitation Services

State Fiscal Year	Level	
	State	National
1993	61.3%	55.0%[a]
1992	62.4%	57.3%[a]
1991	55.2%	59.9%[b]
1990	60.6%	62.2%[b]

Note. Rehabilitation rate = number rehabilitated divided by number rehabilitated plus number not rehabilitated. [a]Rehabilitation Services Administration (1994). [b]Rehabilitation Services Administration (1992).

Other aspects of effectiveness are dealt with in the following discussion of the program user "Benefit Retention Survey." This discussion is based on tabular data contained in Appendix C, under "Standard No. 6", and Appendix C Tables C-1 through C-7.

Benefits Retention Survey

Of 8,438 persons who were rehabilitated from October 1991 through September 1992, a random sample of 660 (8%) program completers were mailed questionnaires (sample in Appendix E) which inquired about their status at 12 months post-closure. The sample consisted of 55 persons rehabilitated drawn each month during FFY 1992-93 (year of follow-up) from the corresponding month of closure (October-September) in FFY 1991-92. Two hundred two individuals (31%) responded. (See Appendix F, Table F-1 for a description of the population from which the sample was drawn.)

Characteristics of respondents differed somewhat from characteristics of the population of status 26 closures. Respondents were more likely to be age 35+, female, disabled by hearing impairment, absence or amputation, orthopedic impairment, or other (NEC). Also respondents were more likely to have completed grades 1-8 or grades 13+. While these dissimilarities likely skewed the survey results, the extent and direction of skew is unknown. It is felt nonetheless, that responses represent a valid and useful measure of the extent to which successful VR program completers retain benefits gained through completion of their individualized rehabilitation programs.

Benefits retention: Status change from acceptance to closure to follow-up FFY '93. The purpose of vocational rehabilitation services is to effect positive change in the lives of persons with disabilities--change that results in their obtaining and retaining certain benefits. Four major benefits of rehabilitation services follow:

1) employment
2) job stability
3) increased wages
4) reduced dependence on public assistance

Benefits retained can be measured only in relationship to benefits gained. Consequently, information is required on public assistance status, employment status and wages at acceptance, closure and follow-up. A smaller proportion of program completers families were receiving public assistance monies in 1993 following rehabilitation services. The percent of VR consumers in paid work at follow-up remained constant from 1991 to 1992, and increased slightly in 1993. Successful participants experienced a slight increase in average weekly earnings each year from 1991 to 1993. (see Table 2)

Comparing North Carolina VR consumers' earnings at closure and follow-up with the State's general private sector population and with the national population of persons with work disabilities helps put the "wages" benefit in meaningful perspective. Figure 1 is such a comparison. (see Figure 1)

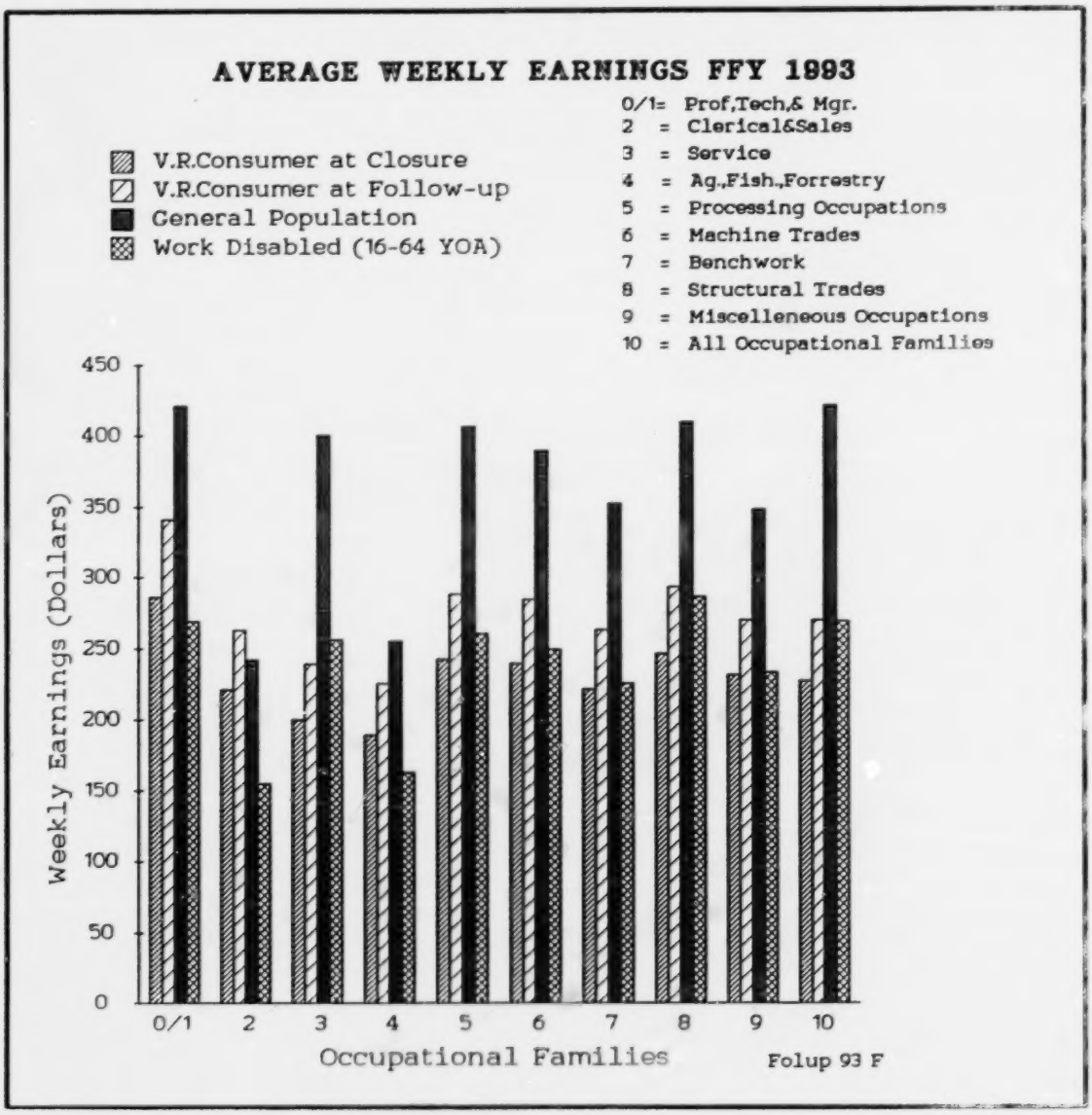
Table 2

Status of VR program participants on selected measures at major points in their rehab process

		Major Points		
ITEM	YEAR	ACCEPTANCE	CLOSURE	FOLLOW-UP
PUBLIC ASSISTANCE	1991	20%	10%	12%
	1992	17%	10%	17%
	1993	20%	10%	12%
WORKING (Paid & Unpaid)	1991	21%	100%	73%
	1992	27%	99%	74%
	1993	22%	97%	75%
Paid Work	1991	21%	97%	70%
	1992	27%	97%	70%
	1993	23%	97%	72%
AVERAGE WEEKLY EARNINGS	1991	$149	$189	$232
	1992	$133	$198	$236
	1993	$118	$205	$244

Note. Values for public assistance and work status are percentages of 243 (1991), 234 (1992) and 202 (1993) benefits retention survey respondents. Of the 1991 respondents, the number with earnings at each major point in the rehab process, was n = 51 (acceptance), n = 234 (completion), and n = 155 (follow-up). Of the 1992 respondents, the number with earnings at each major point in the rehab process, was n = 62 (acceptance), n = 228 (completion), and n = 153 (follow-up). Of the 1993 respondents the number with earnings at each major point in the rehab process, was n=46 (acceptance), n=190 (completion), and n=131 (follow up). **SEE APPENDIX D FOR A COMPREHENSIVE LIST OF JOBS OBTAINED BY PERSONS REHABILITATED AT THE PROGRAMS CONCLUSION AND WHICH ARE REPRESENTATIVE OF JOBS HELD AT FOLLOW-UP (NCDVRS, 1993).**

Figure 1. Average weekly earnings FFY 1993 for persons rehabilitated in FFY 1992.



Corresponding Predominant SIC

0/1 = All Industries
2 = Retail Trade
3 = Service
4 = Ag. Forrest & Fish
5 = Food & Kindred Products
6 = Textiles, Lumber & Wood
7 = Apparel & Other Textile Prod; Misc.
8 = Construction
9 = No Predominant
10= All Industries

Note. See Appendix G for comments on basis of comparisons.

Average weekly earnings for North Carolina VR consumers with earnings are less than for persons of the general population in similar occupations. This is consistent with studies which show similar results nationally. On average, persons with work disabilities earn about sixty-four percent of earnings for persons without work disabilities. (US Bureau of Census, 1989). Of interest, is the fact that North Carolina successful VR participants average earnings at closure exceed estimated earnings of persons nationally who are work disabled in the following occupational categories:

.PROFESSIONAL, TECHNICAL, & MGR.
.CLERICAL, SALES
.AGRICULTURE, FISHERY & FORESTRY

Consumers who were in the following occupational categories had a greater tendency than those in other categories to have remunerative work at follow-up:

.SERVICES
.MACHINE TRADES
.BENCHWORK
.STRUCTURAL WORK
.MISCELLANEOUS

The most frequently occurring occupation at program termination was in the services category.

Demographic characteristics and outcome FFY '93. Among selected consumer characteristics, only age made a clear difference in employment status at follow-up. Persons age 35-44 at referral were more likely than others to have remunerative employment at follow-up. Persons older than 44 years were more likely to have a non-paying job or no job (see Figure 2).

Geographic location of individuals could effect outcomes, since economic conditions vary by region. But, a chi square statistical measure of association revealed that regional location of consumers is not significantly associated with their work status at follow-up.

Rehabilitation professionals strive to help eligible individuals increase their likelihood of employment. In North Carolina about 34% of persons with work disabilities are employed (US Bureau of the Census, 1990a). The fact that paid employment rates for VR program finishers served in each VR region is 69% or higher twelve months after case closure, implies that VR programs do effectively increase chances of employment for consumers who have disabilities (see Table 3).

Figure 2. Work Status at follow-up FFY 1993 by personal characteristics for persons rehabilitated FFY 1992

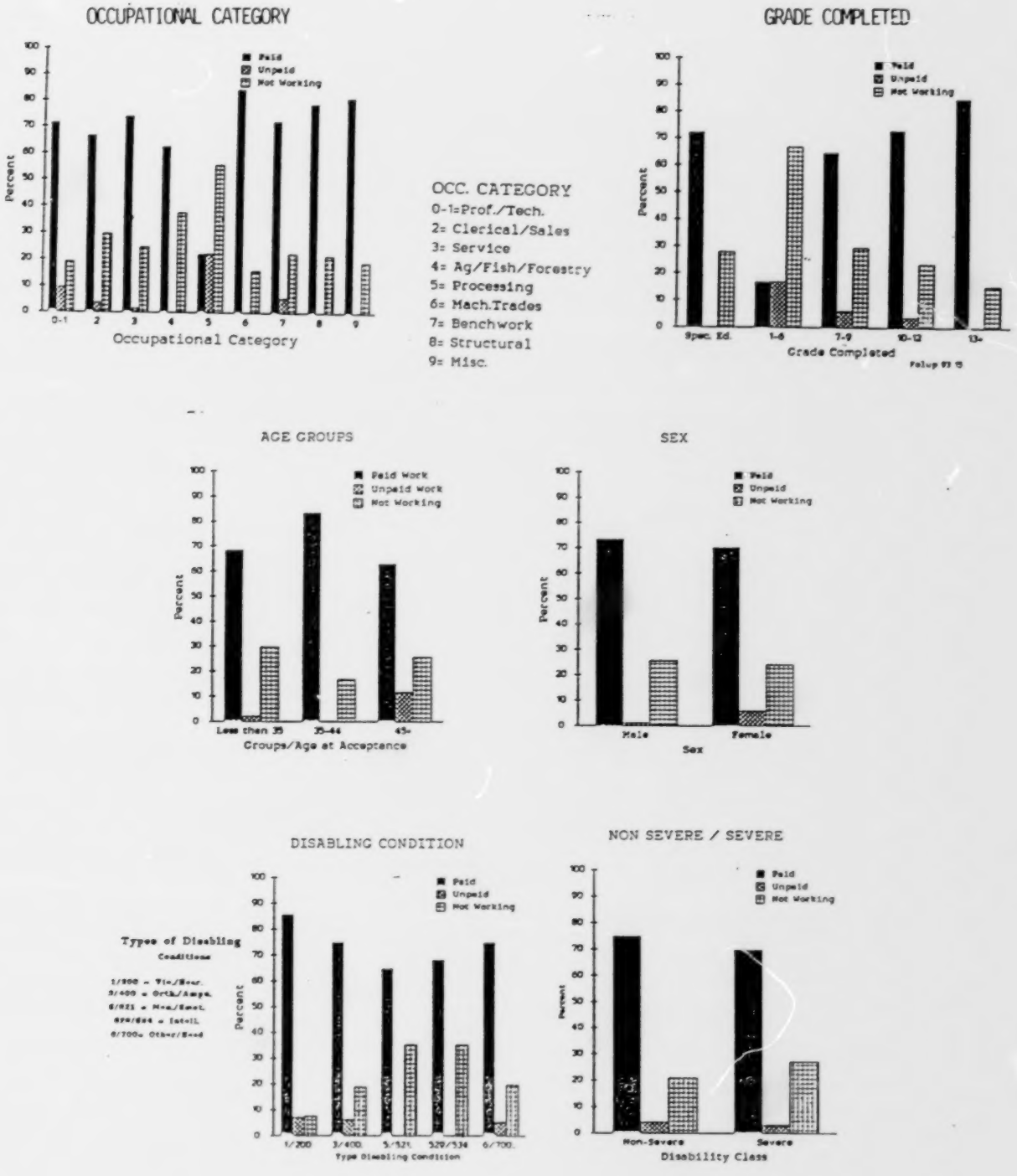


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Table 3

Employment rates for North Carolinians by selected groups by region FFY 93

Region	Employment Rate		
	General Population[a]	VR Consumers[b]	Work Disabled[c]
East	92.9	71.7	About
West	94.3	69.4	34%
South Central	94.5	73.9	for the
North Central	94.5	72.7	State

[a]Percent of North Carolina labor force who were Employed during FFY 93.

[b]Percent of rehabilitated consumers Employed (i.e., remunerative activity) at 12-months post-completion. [c]1990 census: Work disabled population age 16-64.

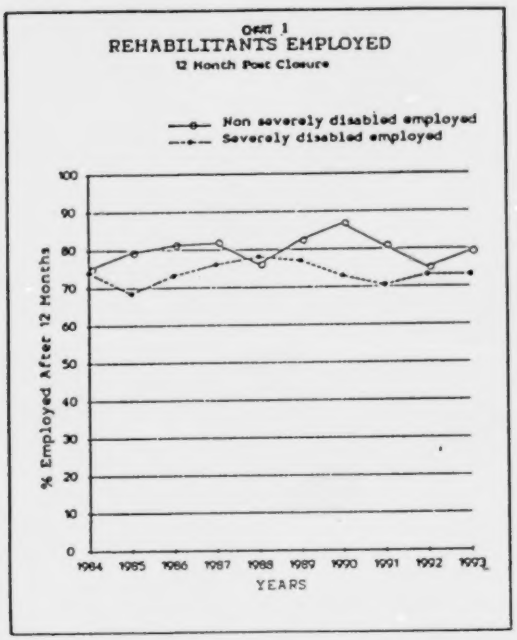
As might be expected, regarding job stability, program participants who were working at follow-up, had a more stable work history throughout the prior twelve months as well. Those who were not working at follow-up (n=49), were on the job an average of 5.1 months during the year. But consumers who were working at follow-up (n=149) were employed an average of 8.4 months.

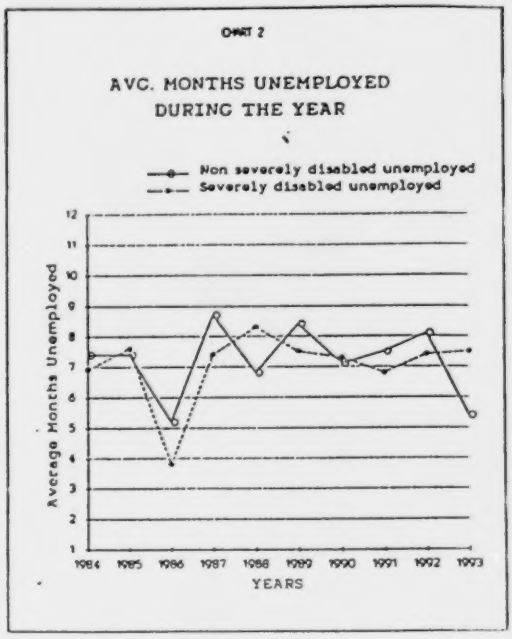
Ten-year trend. The trend for VR completers rate of employment should approximate the general private sector trend. Ideally, job stability for VR consumers would improve year-to-year and average weekly wages would track normal wage trends for the State. Figure 3 and Figure 4 together, demonstrate that these expectations for employment and wages are generally met. General private sector data on job stability was not available (see Figures 3 & 4).

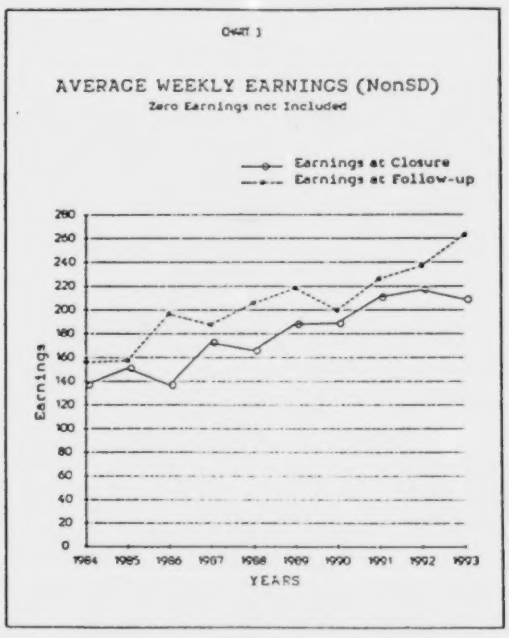
Figure 3 reflects generally an up trend in employment rate at twelve months post-closure for the ten years as a whole for VR consumers--approximating the general private sector trend noted in Chart 1 of Figure 4. The report year upturn is consistent with the increase in the seasonally adjusted unemployment rate for North Carolina from 94.1% in September 1992 to 95.8% in September 1993 (Employment Security Commission, September 1993).

Average weekly earnings at follow-up continue to rise (see Figure 3: Charts 3 and 4)--approximating the general private sector trend noted in Chart 2 of Figure 4. While VR program completers' earnings corresponded with the general direction of the broader population's trend, there were periods in which their earnings differed sharply in size of year-to-year change. These occurrences can likely be attributed to differences in the types of jobs represented by the two populations. For example, compared to the general private sector, VR consumers tend to be underrepresented in professional/technical, clerical and sales; but, overrepresented in service; agriculture,fishery, & forestry; processing, machine trades, bench work, structural work and miscellaneous occupations (Employment Security Commission, November 1992).

Figure 3. Employment status, job stability and weekly earnings for VR Customers surveyed twelve months after completing their rehabilitation program employed: Ten-year trend







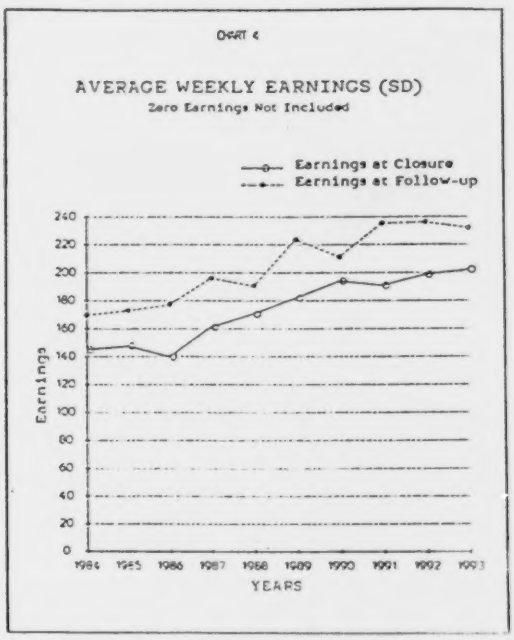


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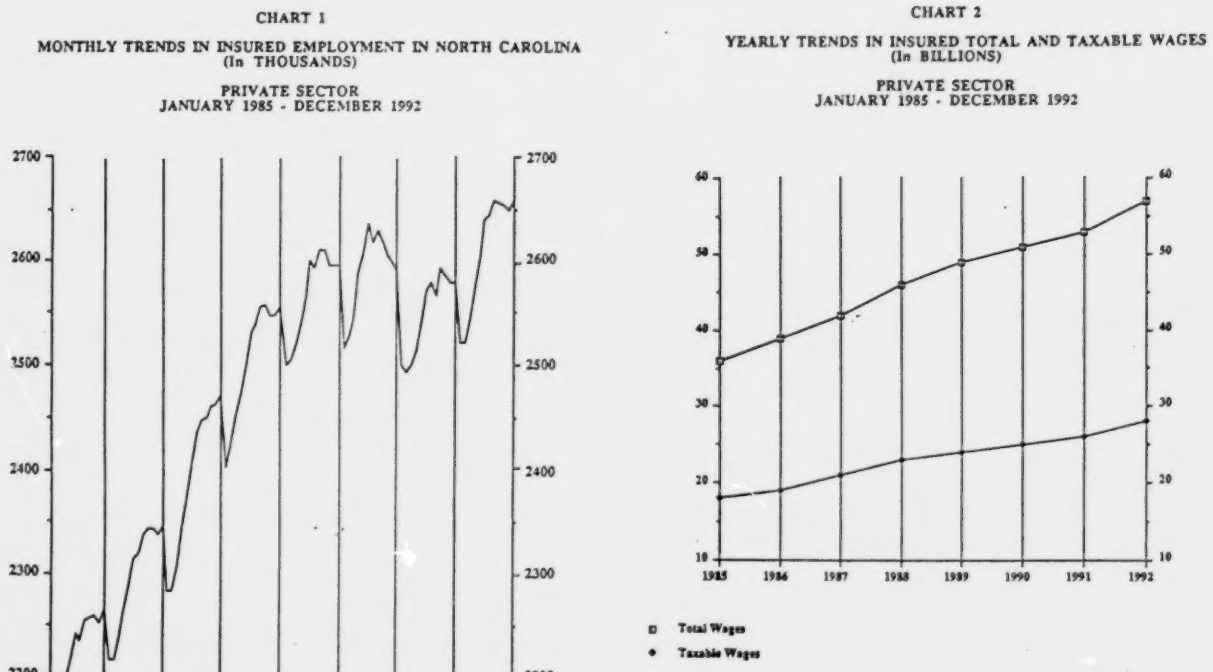
Figure 4. Employment and wages trends in North Carolina



Note. From Employment and Wages in North Carolina, 1992 (pp. 7-8) by Employment Security Commission of North Carolina, Labor Market Information Division, February 1994, Raleigh

Timeliness of Services

Table 4 contains the time required for persons rehabilitated to progress from applicant, to acceptance, to program completion status (see Table 4).

Table 4

Months in VR from application to program completion as a measure of Timeliness of Services for the North Carolina Division of Vocational Rehabilitation Services: State Fiscal Year 1993 Rehabilitants

Months in VR	Number Program Participants	Percent
0 - 3	200	2.4
4 - 6	1,089	12.9
7 - 9	1,231	14.6
10 - 12	1,094	12.9
13 - 18	1,575	18.6
19 - 24	1,025	12.1
25 - 36	1,231	14.6
37+	1,003	11.9

Note. Average months application to acceptance: 2.8. Average months acceptance to completion: 15.7. Average months application to completion: 18.5. The 1992 Amendments to the Rehabilitation Act of 1973 require that eligibility determination be made within sixty days of application for VR Services. New policies and procedures are being implemented by the North Carolina Division of Vocational Rehabilitation Services to insure compliance; thereby a reduction in the average number months from application to acceptance is expected.

Cost Effectiveness (Efficiency)

Cost effectiveness was measured, and reported as cost per unit of outcome (i.e., efficiency). In State Fiscal Year 1993, the NCDVRS expended a total of $19,883,189.56 case service monies to rehabilitate 8,448 persons. This yielded a cost effectiveness value of $2,353.60 per person rehabilitated. (see Table 5 for other cost effectiveness data.)

Table 5

Cost effectiveness measures for the North Carolina Division of Vocational Rehabilitation Services State Fiscal Year 1993

Measure	Unit of Measure	
	Per Person Rehabilitated	Per Capita
Case service expenditure	$2,353.60[a]	N/A
Total program expenditure	$9,019.05[b]	$11.04[c]

[a]Based on case service expenditure of $19,883,189.56 for 8,448 rehabilitants. [b]Based on total program (Title I and Supported Employment) expenditure of $76,192,914 for 8,448 rehabilitants. [c]Based on $76,192,914 total program expenditure (Title I and Supported Employment) for a projected (July 1, 1993) NC population of 6,903,940.

Overall Program Cost/Benefit

Table 6 contains cost/benefit data that reveals approximately a 1:1 relationship -- $1 expended yields $1.04 in program completers projected first year earnings.

Table 6

Overall program cost/benefit State FY 1993: North Carolina Division of Vocational Rehabilitation Services

Measure	$ Amount
Increased earnings per week	$ 1,517,307
Increased earnings per year	$78,899,964

Note. Measure represents increased earnings from acceptance to completion for all persons rehabilitated. **THUS THE $76.193 MILLION NC DVRS PROGRAM GENERATED ANNUAL INCOME TO PERSONS REHABILITATED OF $78.900 MILLION (PROJECTED FIRST YEAR).** From NC DVRS State Fiscal Year 1993 Client Data Statistics for 8,448 Rehabilitants.

A more thorough and valid cost-benefit analysis of the VR Program in North Carolina was conducted in 1980 using a "human capital approach." The analysis yielded a range of cost/benefit ratios from 1:1.22 ($1.22 returned to the economy for every $1 expended) to 1:20.50 ($20.50 returned to the economy for every $1 expended. This range reflects varied combinations of client characteristics including age, sex, race, education level, severity of disability, and type of vocational training. For example, the lower end of the cost/benefits range is likely to be made up of older program participants who have severe functional disability(ies). The upper end of the range is likely to be made up of younger people, with at least twelve years of education and less severe disabilities (Heaslet, 1980).

Consumer Satisfaction with VR Services

Measuring level of consumer satisfaction with VR services is one way to gauge quality of VR staff and consumer involvement; qualify effectiveness, efficiency, cost effectiveness and cost/benefit data. Satisfaction survey results reveal that the Division of Vocational Rehabilitation Services is regarded in an overall positive light by consumers.

Satisfaction Survey

Of 13,797 persons who completed their program in status 26, 28, and 30 from October 1992 through September 1993, a stratified random sample of 1379 (10%) consumers were mailed questionnaires (sample in Appendix A) which inquired about their satisfaction with VR services. The sample was drawn each month during FFY 1992-93 about 60 days post-program termination and cumulated to 900 persons rehabilitated, 360 not rehabilitated-plan initiated and 129 not rehabilitated-plan not initiated closures. Before drawing the sample, all cases which were closed reason code 1 (unable to locate), reason code 4 (death), and reason code 12 (duplicate or reason other than 1-11) were deleted from the population of persons not rehabilitated. Five hundred fifteen consumers (37%) responded. (see Appendix F, Table F-1 for a demographic description of the population of rehabilitated and non rehabilitated persons from which the sample was drawn.)

Responses from persons whose individual plan was initiated, but not completed are addressed only to a limited extent, and responses of persons whose individual plan was not initiated are not included in this report. The emphasis is on responses from successful completers since rehabilitated persons have received a full complement of services which they can evaluate. Consequently, it is important to note how characteristics of successful completer respondents differed from characteristics of the total population of successful completers. Respondents were more likely to be age 35 or older, female, disabled by hearing impairment, orthopedic impairment, absence or amputation of limbs, or other (NEC). Non-respondents were more likely to be disabled by mental illness or mental retardation. While these dissimilarities likely skewed the survey results, the extent and direction of skew is unknown. It is felt, nonetheless, that responses represent a valid and useful measure of the level of satisfaction for rehabilitated individuals

Satisfaction measures FFY '93. The most meaningful measures of customer satisfaction with VR services are contained in responses to the questions which asked customers to report level of satisfaction with VR services generally (question 1), VR counselor performance (question 2), usefulness of job seeking assistance (question 5a), and usefulness of services received, in present activity (question 6) (see Table 7).

An overwhelming majority of the 402 successful completers reported general satisfaction with VR services. All measures were rated satisfactory by more than 75% of rehabilitated respondents -- about the same as in FFY '91 but less than the 80% in FFY92. The percent of respondents who said the VR Counselor's help to look for a job was useful, increased from 77% in 1991 to 88% in 1992 but dropped back to 78% in FFY93. The highest percent of respondents expressed satisfaction with usefulness of medical services (92%). The lowest percent said VR services are useful in helping them perform their present work, homemaker, or family business duties (76%). Respondent percentages for items 3, 4, and 5 were not considered in this comparison since they simply qualify responses to the items immediately following each.

Among individuals who were not rehabilitated, the highest percent of respondents said medical services were useful (88%), up from 84% in 1992 and up from 76% in 1991. The lowest percent said the training they received was useful (48%). The percent of individuals who reported that training received is useful, declined from 63% in 1991 to 58% in 1992 and 48% in 1993.

Eight-year trend. Instead of a ten-year trend, an eight-year trend is presented for satisfaction measures, since a major rewording of questions was introduced in 1986. Questions were simplified and made more direct in order to improve survey validity. See Figure 5 for a chart summary of the overall positive trends.

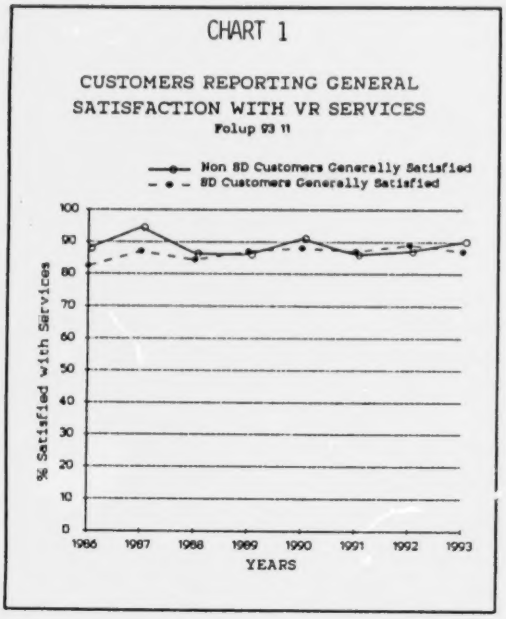
Table 7

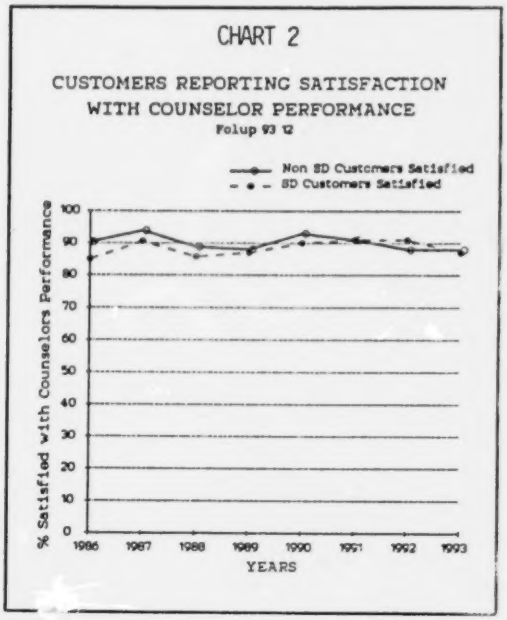
Comparison of successful completer satisfaction with unsuccessful completer satisfaction FFY 1991, 1992, and 1993

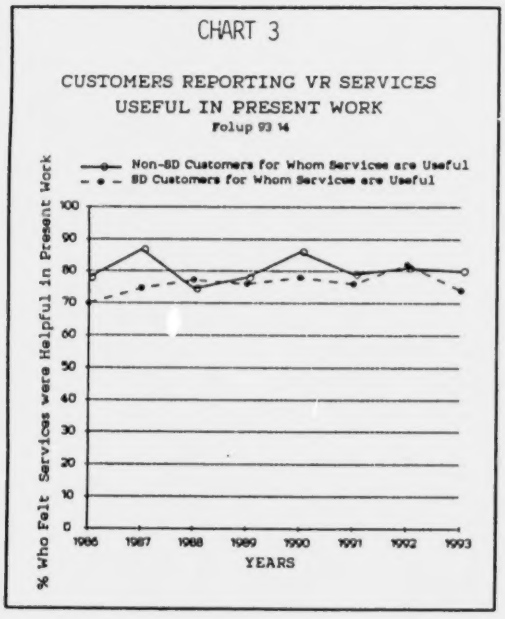
		PERCENT RESPONDING YES					
		STATUS 26			STATUS 28		
		1991	1992	1993	1991	1992	1993
1.	Generally Satisfied with VR Services	87	88	88	67	70	69
2.	Satisfied with Counselor Performance	91	90	87	71	76	74
*3.	Counselor Arranged Medical Services	59	59	60	43	47	55
3a.	Medical Services Useful	92	93	92	76	84	88
*4.	Counselor Arranged Vocational Training	42	44	47	41	42	39
4a.	Training Useful	80	89	82	63	58	48
*5.	Counselor Helped Look for Job	53	53	50	45	39	35
5a.	Help to Look for Job Useful	77	88	78	51	58	48
6.	Services from VR Useful in Helping Perform Present Work, Homemaker, or Family Business Duties	77	82	76	37	45	50

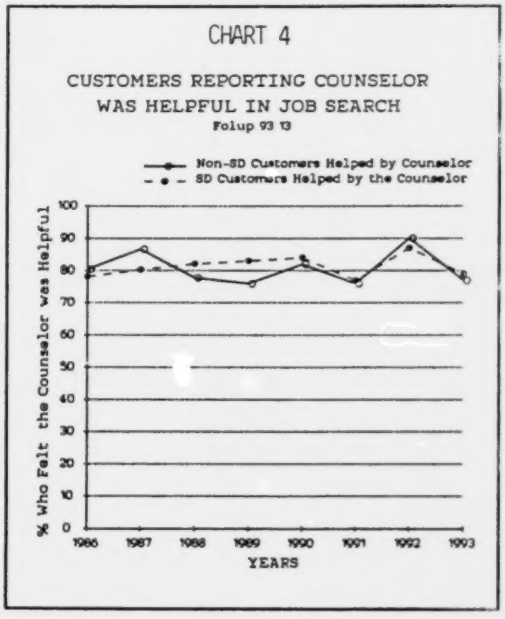
Note. Questions with asterisks qualified the respondents to the questions that immediately follow each. For example, under the Status 26 column (1993), note that 60 percent of those who responded to Question 3 indicated that their counselor did "arrange medical services." Then note that only those individuals responded to Question 3a. In other words, 92 percent of persons who responded "yes" to Question 3 also stated that medical services were useful for them.

Figure 5. Level of satisfaction with services for VR Customers surveyed about sixty days after completing their rehabilitation program employed: Ten-year trend









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APPENDIX

Appendix A

Standard No. 1

Target Population: Potential Vocational Rehabilitation Services Consumers

The most reliable enumeration of persons with disabilities is produced every decade by the US Bureau of the Census -- a count of persons who consider themselves work disabled. In North Carolina, approximately 8% of persons age 16-64 have such a disability (US Bureau of Census, 1990b). Work disability is defined by the Census Bureau as follows:

> Persons were identified as having a work disability if they had a health condition that had lasted for 6 or more months and which limited the kind or amount of work they could do at a job or business. A person was limited in the kind of work he or she could do if the person had a health condition which restricted his or her choice of jobs. A person was limited in the amount of work if he or she was not able to work full-time. Persons with a work disability were further classified as "Prevented from working" or "Not prevented from working."
>
> The term "health condition" referred to both physical and mental conditions. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition. (US Bureau of the Census, 1990a p. B-35).

Disability is also considered in the broader context of "limitation of activity." This concept is applied by the US Census Bureau when conducting the weekly National Health Interview Survey for the National Center for Health Statistics (Adams and Benson, 1990). Since "unpaid family worker" and "homemaker" are valid occupations for persons who have been rehabilitated, the concept that most nearly suits Vocational Rehabilitation purposes is "limitation of major activity due to chronic condition" (versus acute condition). Major activity refers to the usual activity for one's age-sex group, whether it is working, keeping house, going to school, or living independently (Adams and Benson, 1990). Four categories are used to classify persons by limitation of activity: (1) unable to carry on major activity for their group, (2) limited in amount or kind of major activity performed, (3) not limited in major activity, but otherwise limited, and (4) not limited in activities (Adams and Benson, 1990). The Division of Vocational Rehabilitation Services is concerned with persons in categories one and two in particular, when work is the major activity which is limited. But some in category 3 also merit attention, since persons who are presently not limited in their major activity of "school", for example, will be required to make a transition into the major activity of "work" for which they might be limited. Similarly, older persons who are not presently limited in their major activity of "living independently" or "hobby" related activity, might of necessity attempt to return to work, an activity in which they could be limited.

Chronic condition is either (1) a condition of more than three months duration or (2) one of the conditions always classified as chronic regardless of the time of onset. A partial list of this latter group includes: diabetes, heart conditions, emphysema, and arthritis (Adams and Benson, 1990).

The US Bureau of the Census conducted the "Survey of Income and Education" in 1976. Self-reported "limitation of activity" was the concept used to identify persons with disabilities. Data from this survey is the only state-specific general disability data available. The estimate of number persons with a "limitation of activity" (i.e., disability) for North Carolina was 15.6% of all ages and 14.8% of ages 14-64. Although dated and controversial these percentages seem to be reliable and valid estimates. This assumption is partially supported in the fact that the national and the South's regional estimates for all ages, which are updated in published reports annually have held constant between 13% and 14% since 1972.

Given these considerations, and the Agency's current policies, a reasonable target population for VR services in North Carolina is 14.8% of persons 14-64 years of age -- realizing there is legally no upper age limit. The State Data Center for North Carolina projected a state population of 6,903,940 people as of July 1, 1993 of whom about 4,721,961 are age 14-64. Fourteen and eight tenths percent of those age 14-64 yields a target population estimate of 698,850 persons with a "limitation in major activity" -- the predominant activity for this age group, being work. During the approximate period of 1988 to 1994, 205,071 persons were on Agency caseloads either being evaluated for services, receiving services, or as successful or unsuccessful rehabilitation program completers. This means the Agency has served, is serving, or is considering serving about 29% of its target population, at any given time. History indicates that about 55% of applicants will become eligible for services and about 60% of these will experience successful rehabilitation.

Appendix B

Summary of Sources and Expenditures of Funds
North Carolina State Fiscal Year 1992-93

SOURCE OF FUNDS
(Base Program)

28.95%	State (Included Third Party)	$21,827,095
71.05%	Federal	53,577,190
		$75,404,285

PROGRAM EXPENDITURES

BASE PROGRAM (Section 110)

7.76%	Administration	$ 5,848,434
38.83%	Counseling and Placement	29,281,057
52.44%	Case Service (Total)	39,543,771
.97%	Specialized Facilities	731,023
		$75,404,285

SPECIAL PROGRAMS (Source of Funds and Expenditures)

Transition Services for Youth with Disabilities

	Inter-Agency	$ 141,482	
	Other Receipts	2,360	
	Total		$ 143,842

Supported Employment Project (Title III, Title VI-Part C)

100%	Federal	$ 788,629

Assistive Technology Project (NIDRR)

90.69%	Federal	$ 645,263	
9.31%	Other Receipts	66,221	
	Total		$ 711,484

Independent Living Programs (Title VII, Title VII-Part A)

100% and 90%	Federal	$ 535,519	
100%	State	2,997,752	
100%	Private Grants	32,050	
	Total		$ 3,565,321

In-Service Training Grant (Section 4)

90%	Federal	$136,275	
10%	State	15,141	
	Total		$ 151,416

Client Assistance Project (Section 112)

100%	Federal	$ 175,757

TOTAL SPECIAL PROGRAMS	$ 5,536,449
TOTAL BASE AND SPECIAL PROGRAMS	$80,940,734

Appendix C

Program Evaluation Standards: Tabular Data

1992 - 93 Federal Fiscal Year

North Carolina Division of Vocational Rehabilitation Services

Standard No. 2

6. Consistency of Job Closure with Agency Sponsored Vocational Training

Types of Training	Training/Job Consistent Yes	No	Total	% of Total Consistent
1. College/University	246	650	896	27.5
2. Business/Vocational School	597	266	863	69.2
3. OJT	505	26	531	95.1
Total	1,348	942	2,290	58.9

The figures above are based on data retrieved from a computerized consumer data system comparing first digit of DOT code at closure with types of training received. The data are incomplete because some individuals received training of an occupational nature that was coded "adjustment training." Since those individuals could not be separated from the bulk of people in this category which includes gait, speech and personal adjustment training with no specific vocational significance, the entire category was deleted.

Standard No. 5: Effort Factors

1. No. caseload carrying counselor man-years: 354

2. No. authorized and funded full-time caseload carrying counselor positions: 378

   No. caseload carrying counselor new hires: 44

   No. caseload carrying counselor separations: 57

3. A. Hiring rate: 44 divided by 378 = 11%

   B. Separation rate: 57 divided by 378 = 15%

4. A. Caseload Management

      1. Develop, train, and implement computerized Individualized Written Rehabilitation Program (IWRP) system.

      2. Policy revision on Small Business Operations.

      3. Revision in Case Service Authorization process.

   B. Caseload Review

      1. Maintain CRS review.

      2. Continued 100% review of successfully rehabilitated cases.

      3. Continued review of all records closed in Status 28.

   C. Caseload Monitoring

      1. Computer generated reports of CRS.

      2. Computer generated review of clients receiving training.

      3. Computer reviews of placement and training equipment purchases.

Standard No. 6

One Year Follow-up of Persons Rehabilitated in 1991-92 FFY

	Severely Disabled	Non-Severely Disabled	Combined
1. Percent of successful completers employed at one year follow-up	73.1%	79.2%	75.3%
2. Percent of successful completers with earnings at follow-up	63.0%	69.0%	65.0%
Mean earnings at follow-up of those with earnings	$231.97	$263.07	$244.17
Mean earnings for all with/without earnings at follow-up	$146.60	$186.34	$161.13
3. Percent increase or decrease of earnings at follow-up to earnings at closure (includes completers with and without earnings at closure and at follow-up)	-26%	-10%	-20%
4. Percent of successful completers unemployed at follow-up	26.9%	20.8%	24.7%
Percent of consumers indicating months unemployed in last year if unemployed at follow-up	24.6%	15.3%	21.2%
Percent indicating:			
1 month or less	0.8%	2.8%	1.5%
2-3 months	4.8%	2.8%	4.0%
4-6 months	7.1%	5.6%	6.6%
7-12 months	11.9%	4.2%	9.1%
Number Respondents Reporting Work Status	126 (100%)	72 (100%)	198 (100%)

Standard No. 7

One Year Follow-up of Persons Rehabilitated in 1991-92.

Post-Employment Services

	Severely Disabled	Non-Severely Disabled
1. Percent of rehabilitated consumers FFY 91-92 (8,438) receiving post-employment services during 12 months following program completion (report year FFY 92-93)	1.9% (N=160)	0.8% (N=68)
2. Percent receiving the following types of post-employment services of the total receiving post-employment services:		
A) Diagnostic and Evaluation	18.1%	23.5%
B) Restoration (Physical and Mental)	25.6%	39.7%
C) Training	4.4%	1.5%
D) Counseling and Guidance Only	34.4%	22.1%
E) Transportation	3.1%	7.4%
F) Maintenance	9.4%	4.4%
G) Other Services	5.0%	1.5%
	(N = 160)	(N = 68)

Note 1: Percentages sum to more than 100% since some consumers received more than one service.

Note 2: Post-Employment Services data for years prior to FFY 90 should be disregarded due to error in the PE services identification procedure.

Standard No. 6, 7, and Part of Standard No. 9

One Year Follow-up of 1991-92 FFY Persons Rehabilitated

Beginning October 1, 1992 and continuing through September 30, 1993, a random sample of fifty-five (55) rehabilitated individuals in each corresponding month in 1991-92 was drawn.

At the beginning of each month, a questionnaire was mailed to each former customers in the sample, along with a cover memorandum from the Deputy Director of the agency. Stamped, return addressed envelopes were also enclosed for use by respondents.

The total number of persons rehabilitated between October 1, 1991 and September 30, 1992 was 8,438. The total size of the random sample for the year was 660 or 7.8% of the total number of rehabilitated individuals.

	Number	Percent	
Successfully Rehabilitated	8,438	100.0	
Random Sample	660	7.8	
Returned from Post Office	101	15.3	(of Random Sample)
Net Possible Respondents	559	84.7	(of Random Sample)
Actual Respondents	202	36.1	(of "Possible" Respondents)
		30.6	(of Random Sample)
		2.4	(of Total Rehabilitated)

In each of the following tables the totals of "severely disabled" and "non-severely disabled" categories may vary due to missing data. In the 12 months follow-up study there were 401 severely disabled persons in the sample and 259 non-severely disabled.

TABLE C-1. WORK STATUS AT FOLLOW-UP

	Severely Disabled		Non-Severely Disabled		Combined	
	N	%	N	%	N	%
Working at Follow-up[1]	92	73.1	57	79.2	149	75.3
Not Working at Follow-up[2]	34	26.9	15	20.8	49	24.7
Total	126	100.0	72	100.0	198	100.0

[1]Includes categories competitive employment, sheltered workshop, self-employed, homemaker, unpaid family worker.

[2]Includes categories not working, student, not working other.

TABLE C-2. WEEKLY EARNINGS AT CLOSURE[a]

	Severely Disabled		Non-Severely Disabled		Combined[b]	
	N	%	N	%	N	%
Had earnings at closure	391	98	257	100	648	99
Did not have earnings at closure	8	2	0	0	8	1
Total	399	100	257	100	656	100
Average weekly earnings of those with earnings	$202.20		$208.85		$204.83	
Minimum weekly earnings	$ 24.00		$ 40.00		$ 24.00	
Maximum weekly earnings	$800.00		$560.00		$800.00	
Average weekly earnings of total sample, with and without earnings	$197.15		$207.24		$201.11	

[a]Include all persons in sample whether a follow-up questionnaire was returned or not.

[b]Missing 4 records due to missing data in disability classification field.

TABLE C-3. WEEKLY EARNINGS AT FOLLOW-UP

	Severely Disabled		Non-Severely Disabled		Combined	
	N	%	N	%	N	%
Had earnings at follow-up[1]	80	63	51	69	131	65
Did not have earnings at follow-up[1]	48	37	23	31	71	35
TOTAL WITH/WITHOUT EARNINGS[1]	128	100	74	100	202	100
Average weekly earnings of those with earnings[2]	$231.97		$263.07		$244.17	
Minimum weekly earnings	$ 2.54		$ 24.51		$ 2.54	
Maximum weekly earnings	$600.00		$597.00		$600.00	
Average weekly earnings of total sample, with and without earnings[2]	$146.60		$186.34		$161.13	

1 Reports prior to FFY 89 included only individuals for whom weekly earnings could be derived if earnings were reported as other than weekly, i.e., hourly, monthly, annual. The FFY 89 and subsequent reports include all program participants reporting earnings whether hourly, weekly, monthly, or yearly and therefore more accurately reflect benefit retention.

2 Of necessity average weekly earnings have been consistently computed only for participants for whom weekly earnings could be derived if earnings were reported as other than weekly.

TABLE C-4. PERCENT CHANGE IN EARNINGS FROM CLOSURE TO FOLLOW-UP

	Severely Disabled	Non-Severely Disabled	Combined
Of those <u>with</u> earnings only:			
Average weekly earnings at completion	$202.20	$208.85	$204.83
Average weekly earnings at follow-up	$231.97	$263.07	$244.17
Percent change	+15%	+26%	+19%
Of total sample, <u>with</u> and <u>without</u> earnings:			
Average weekly earnings at completion	$197.15	$207.24	$201.11
Average weekly earnings at follow-up	$146.60	$186.34	$161.13
Percent change	-26%	-10%	-20%
Of those with earnings at completion: (SD = 391, NSD = 257)			
Average weekly earnings at completion	$202.20	$208.85	$204.83
Average weekly earnings at follow-up of those with earnings at completion	$154.00	$188.96	$167.06
Percent change	-24%	-10%	-18%

TABLE C-5a. WORK STATUS OF SEVERELY DISABLED CONSUMERS AT CLOSURE AND FOLLOW-UP

Closure Work Status	Follow-up Work Status 1 Comp. Emp.	2 Sheltered Workshop	3 Homemaker	4 Unpaid Family Worker	5 Not Working Other	Totals
1. Comp. Emp.	79	7	2	-	30	118
2. Sheltered Workshop	--1	1	-	-	1	3
3. Homemaker	---	--	2	-	3	5
4. Unpaid Family Worker	---	--	-	-	--	-
Totals	80	8	4	0	34	126

TABLE C-5b. WORK STATUS OF NON-SEVERELY DISABLED CONSUMERS AT CLOSURE AND FOLLOW-UP

Closure Work Status	Follow-up Work Status 1 Comp. Emp.	2 Sheltered Workshop	3 Homemaker	4 Unpaid Family Worker	5 Not Working Other	Totals
1. Comp. Emp.	53	-	1	2	14	70
2. Sheltered Workshop	1	-	--	-	--	1
3. Homemaker	--	-	--	-	1	1
4. Unpaid Family Worker	--	-	--	-	--	---
Totals	54	0	1	2	15	72

TABLE C-6. NUMBER OF MONTHS UNEMPLOYED LAST YEAR IF UNEMPLOYED AT FOLLOW-UP

	Severely Disabled		Non-Severely Disabled		Combined	
	N	% of 126	N	% of 72	N	% of 198
1 month or less	1	0.8	2	2.8	3	1.5
2-3 months	6	4.8	2	2.8	8	4.0
4-6 months	9	7.1	4	5.6	13	6.6
7-12 months	15	11.9	3	4.2	18	9.1
Total	31	24.6	11	15.3	42	21.2
Number Respondents Reporting Work Status (from Table C-1)	126	100.0	72	100.0	198	100.0
Average number of months unemployed (for those unemployed who reported months unemployed at follow-up)	7.5 (N = 31, Min = 1, Max = 12)		5.36 (N = 11, Min = 1, Max = 12)		6.9 (N = 42, Min = 1, Max = 12)	
Average number of months unemployed last year if employed at follow-up)	3.8 (N = 25, Min = 1, Max = 10)		3.1 (N = 14, Min = 1, Max = 6)		3.6 (N = 37, Min = 1, Max = 10)	

TABLE C-7. NUMBER MONTHS SINCE LAST EMPLOYED IF UNEMPLOYED AT FOLLOWUP

	Severely Disabled		Non-Severely Disabled		Combined	
	N	% of 126	N	% of 72	N	% of 198
1 month or less	3	2.4	3	4.2	6	3.0
2-3 months	9	7.1	3	4.2	12	6.1
4-6 months	8	6.3	1	1.4	9	4.5
7-12 months	10	7.9	5	6.9	15	7.6
Total	30	23.8	12	16.7	42	21.2
Number Respondents Reporting Work Status	126	100.0	72	100.0	198	100.0
Average number of months since last employed if unemployed at followup	8.5 (N = 30, Min = 1, Max = 40)		5.3 (N = 12, Min = 1, Max = 12)		7.9 (N = 42, Min = 1, Max = 40)	

Standard No. 9

Consumer Satisfaction
Follow-up of 1992-93 FFY Closures 26, 28, and 30

A random sample, stratified by successful (status 26) and unsuccessful (status 28 and 30) completers was pulled at approximately 60 days post-closure, beginning with program participants who completed during October 1992. Each subsequent month was sampled through September 1993. Before drawing the random sample, all records which were terminated Reason Code 1 - "Unable to locate", Reason Code 4 - "Death", and Reason Code 12 - "Duplicate" or reason other than 1-11 were deleted from the population of unsuccessful completers.

A satisfaction questionnaire with cover memorandum and addressed/stamped envelope was mailed to consumers in the sample. The sample breakdown, pattern of responses and results of the survey follow.

	Number	Percent of Population
No. Closures 26 (FFY 93)	8,574	100.0
Random Sample	900	10.5

	Number	Percent		Number	Percent
No. Closures 28 (FFY 93)	5,495	100.0	No. Closures 30 (FFY 93)	194	100.0
Total Deleted 28 (Reason Codes 1, 4, 12)	1,916	34.9	Total Deleted 30 (Reason Codes 1, 4, 12)	65	33.5
Net Total Pop. 28	3,579	65.1	Net Total Pop. 30	129	66.5
10% Random Sample (of Net Total Pop. 28)	360	10.0	Random Sample (of Net Total Pop. 30)	119	92.3

Returned by P. O. (Status 26, 28, 30) = 139 or 10.1% of 1,379 (Random Sample of 26, 28, 30).

Total Responses (Status 26, 28, 30) = 515 or 37.3% of 1,379 (Random Sample of 26, 28, 30). 1,379 - 139 P. O. returns = 1,240 w/515 returns or 41.5%.

TABLE C-8
SATISFACTION OF PERSONS CLOSED STATUS 26 IN FEDERAL FY 1992-93
BY SEVERE/NON-SEVERE DISABILITY

	No. +% Responding Yes				
	Total % Responding Yes	SD		Non-SD	
		N	%	N	%
SERVICES:					
A. Generally satisfied with VR services No. Responding = 402 (SD = 261 Non-SD = 141)	88	226	87	127	90
B. Satisfied with counselor performance No. Responding = 403 (SD = 262 Non-SD = 141)	87	227	87	124	88
C. Counselor arranged medical services No. Responding = 398 (SD = 257 Non-SD = 141)	60	148	58	90	64
D. Medical services useful No. Responding = 229 (SD = 140 Non-SD = 89)	92	127	91	83	93
E. Counselor arranged vocational training No. Responding = 389 (SD = 250 Non-SD = 139)	47	129	52	53	38
F. Training useful No. Responding = 160 (SD = 115 Non-SD = 45)	82	94	82	37	82
G. Counselor helped look for job No. Responding = 391 (SD = 254 Non-SD = 137)	50	140	55	55	40
H. Help to look for job useful No. Responding = 171 (SD = 124 Non-SD = 47)	78	98	79	36	77
I. Services for VR useful in helping perform present work, homemaker, or family business duties No. Responding = 399 (SD = 258 Non-SD = 141)	76	191	74	113	80

Questionnaires returned to the Division of Vocational Rehabilitation Services by the respondents yielded information included in the following tables:

Standard No. 9

Satisfaction of Persons Closed Status 28 and 30 in Federal FY 1992-93

TABLE C-9
Satisfaction by Status

	Total % Responding Yes	No. +% Responding Yes			
		Status 28		Status 30	
		N	%	N	%
SERVICES:					
A. Generally satisfied with VR services No. Responding = 113 (Status 28 = 88 Status 30 = 25)	63	61	69	10	40
B. Satisfied with counselor performance No. Responding = 113 (Status 28 = 88 Status 30 = 25)	69	65	74	13	52
C. Counselor arranged medical services No. Responding = 109 (Status 28 = 86 Status 30 = 23)	51	47	55	8	35
D. Medical services useful No. Responding = 51 (Status 28 = 43 Status 30 = 8)	86	38	88	6	75
E. Counselor arranged vocational training No. Responding = 108 (Status 28 = 84 Status 30 = 24)	39	33	39	9	38
F. Training useful No. Responding = 38 (Status 28 = 29 Status 30 = 9)	45	14	48	3	33
G. Counselor helped look for job No. Responding = 106 (Status 28 = 81 Status 30 = 25)	31	28	35	5	20
H. Help to look for job useful No. Responding = 30 (Status 28 = 25 Status 30 = 5)	53	13	52	3	60
I. Services for VR useful in helping perform present work, homemaker, or family business duties No. Responding = 107 (Status 28 = 82 Status 30 = 25)	44	41	50	6	24

Standard No. 9

Satisfaction of Persons Closed Status 28 and 30 in Federal FY 1992-93

TABLE C-10
Satisfaction by Severe/Non-Severe Disability

	Total % Responding Yes	No. +% Responding Yes			
		SD		Non-SD	
		N	%	N	%
SERVICES:					
A. Generally satisfied with VR services No. Responding = 113 (SD = 91 Non-SD = 22)	63	63	69	8	36
B. Satisfied with counselor performance No. Responding = 113 (SD = 91 Non-SD = 22)	69	68	74	10	46
C. Counselor arranged medical services No. Responding = 109 (SD = 89 Non-SD = 20)	51	50	56	5	25
D. Medical services useful No. Responding = 51 (SD = 47 Non-SD = 4)	86	40	85	4	100
E. Counselor arranged vocational training No. Responding = 108 (SD = 87 Non-SD = 21)	39	36	41	6	29
F. Training useful No. Responding = 38 (SD = 32 Non-SD = 6)	45	13	41	4	67
G. Counselor helped look for job No. Responding = 106 (SD = 84 Non-SD = 22)	33	28	33	5	23
H. Help to look for job useful No. Responding = 30 (SD = 26 Non-SD = 4)	53	12	46	4	100
I. Services for VR useful in helping perform present work, homemaker, or family business duties No. Responding = 107 (SD = 86 Non-SD = 21)	44	38	44	9	43

Appendix D

STATE FISCAL YEAR 1993

07/01/92 - 06/30/93

CLIENT DATA STATISTICS FOR 8,448 REHABILITANTS

DICTIONARY OF OCCUPATIONAL TITLES TWO-DIGIT OCCUPATIONAL DIVISIONS	NO. OF PERSONS	TOTAL
OCCUPATION AT CLOSURE		
00 - 19 PROFESSIONAL, TECHNICAL, MANAGERIAL		
Architecture, engineering, and surveying	38	
Mining and petroleum engineering	17	
Mathematics, physical sciences	9	
Computer Related	6	
Life sciences	24	
Social sciences	1	
Medicine and health	111	
Education	80	
Museum, library, archival sciences	9	
Law and jurisprudence	10	
Religion and theology	8	
Writing	14	
Art/photography	19	
Entertainment and recreation	16	
Administrative specializations	68	
Managers and officials, n.e.c.	154	
Miscellaneous professional, technical, managerial	47	
		631
20 - 29 CLERICAL AND SALES		
Stenography, typing, filing, and related occupations	220	
Computing, account-recording	345	
Material and production recording	121	
Information and message distribution	106	
Miscellaneous clerical (collectors, adjusters, direct service clerks, claims, survey, customs, court, credit, license, etc.)	57	
Sales occupations, services	24	
Sales occupations, consumable commodities	36	
Sales occupations, commodities, n.e.c.	114	
Miscellaneous sales (clerks, vending, solicitors, auctioneers, shoppers, sales promotion, merchandise displayers, etc.)	221	
		1,244

STATE FISCAL YEAR 1993

07/01/92 - 06/30/93

CLIENT DATA STATISTICS FOR 8,448 REHABILITANTS

DICTIONARY OF OCCUPATIONAL TITLES TWO-DIGIT OCCUPATIONAL DIVISIONS	NO. OF PERSONS	TOTAL
OCCUPATION AT CLOSURE		
30 - 38 SERVICE OCCUPATIONS		
Domestic services	176	
Food, beverage; preparation and service	1,056	
Lodging; related services	177	
Barbering, cosmetology; related services	101	
Amusement and recreation	15	
Miscellaneous personal services (ship stewards, train attendants, hosts, hospital attendants, baggage handlers, etc.)	505	
Apparel and furnishings	92	
Protective services	90	
Building and related services	337	
		2,549
40 - 46 AGRICULTURAL, FISHERY, FORESTRY, AND RELATED OCCUPATIONS		
Plant farming	151	
Domestic animal farming	64	
Miscellaneous agricultural; related occupations	47	
Fishery and related occupations	15	
Forestry occupations	12	
Hunting, trapping and related occupations	5	
		294
50 - 59 PROCESSING OCCUPATIONS		
Metal	10	
Ore refining and foundry occupations	6	
Food, tobacco; related products	100	
Paper and related materials	2	
Petroleum, coal, natural and manufactured gas, etc.	1	
Chemicals, plastics, synthetics, rubber, paint; related products	45	
Wood and wood products	14	
Stone, clay, glass; related products	12	
Leather, textiles; related products	65	
Processing occupations, n .c. (electronics, insulation, ceramics, coating, dipping, milling, spraying, washing, etc.)	11	
		266

STATE FISCAL YEAR 1993

07/01/92 - 06/30/93

CLIENT DATA STATISTICS FOR 8,448 REHABILITANTS

DICTIONARY OF OCCUPATIONAL TITLES TWO-DIGIT OCCUPATIONAL DIVISIONS	NO. OF PERSONS	TOTAL
OCCUPATION AT CLOSURE		
60 - 69 MACHINE TRADES OCCUPATIONS		
Metal machining	63	
Metal working occupations, n.e.c. (shaping, conditioning, rolling, forging, extruding, punching and press work)	105	
Mechanics and machinery repairmen - motorized vehicle and engineering equipment	125	
Mechanics and machinery repairmen - general industry	95	
Paperworking	17	
Printing	22	
Wood machining	60	
Machining stone, clay, glass; related materials	10	
Textiles	171	
Machine trades, n.e.c. (fabrication of wire/ cable; assorted materials; model/pattern makers; fabrication of ordnance, ammunition; related products)	37	
		705
70 - 79 BENCHWORK OCCUPATIONS		
Fabrication, assembly, repair of metal products, n.e.c.	83	
Fabrication and repair of scientific and medical apparatus, photographic, optical goods, watches, clocks	19	
Assembly and repair of electrical equipment	66	
Fabrication and repair of products made from assorted materials	32	
Painting, decorating; related occupations	32	
Fabrication and repair of plastics, synthetics, rubber; related products	8	
Fabrication and repair of wood products	77	
Fabrication and repair of sand, stone, clay, and glass products	7	
Fabrication and repair of textiles, leather, and related products	289	
Benchwork, n.e.c. (preparation of food, tobacco and related products)	3	
		616

STATE FISCAL YEAR 1993

07/01/92 - 06/30/93

CLIENT DATA STATISTICS FOR 8,448 REHABILITANTS

DICTIONARY OF OCCUPATIONAL TITLES TWO-DIGIT OCCUPATIONAL DIVISIONS	NO. OF PERSONS	TOTAL
OCCUPATION AT CLOSURE		
80 - 89 STRUCTURAL WORK OCCUPATIONS		
Metal fabricating, n.e.c. (riveters, tinsmiths, boilermakers, bodymen)	45	
Welders, cutters; related occupations	52	
Electrical assembling, installing, and repairing	87	
Painting, plastering, water-proofing, cementing; related occupations	70	
Excavating, grading, paving; related occupations	19	
Construction occupations, n.e.c. (carpenters brick/stone masons, tile setters, plumbers, asbestos/insulation workers, floor laying, glaziers, roofers, concreting, etc.)	439	
Structural work occupations, n.e.c. (structural maintenance, hoisting/conveying, foremen-labor crew, highway maintenance, airport, house trailer lot maintenance, divers, etc.)	106	
		818
90 - 97 MISCELLANEOUS OCCUPATIONS		
Motor freight	174	
Transportation, n.e.c. (railroad occupations, ships, air, passenger; pumping and pipe-line transportation; parking lots, taxis, etc.)	137	
Packaging and material handling	764	
Extraction of minerals	3	
Occupations in production and distribution of utilities	16	
Amusement, recreation, motion picture, radio and television occupations, n.e.c.	2	
Occupations in graphic art work	38	
		1,134
SPECIAL OCCUPATIONS		
5999 Homemaker (own home)	162	
6999 Sheltered Workshops, n.e.c.	17	
7999 Unpaid Family Workers	12	
		191
TOTAL		8,448

Appendix E
Sample Questionnaires

No._____
DVR-8001
REV. 01/90

VOCATIONAL REHABILITATION SERVICES
SATISFACTION SURVEY

1. Generally, are you satisfied with what the Vocational Rehabilitation program has done for you? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Not Sure [4] No Opinion

2. Are you satisfied with your counselor's performance (that is, did he/she do a good job for you)? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Not Sure [4] No Opinion

3. Did your counselor arrange for you to have medical services, such as surgical or medical treatment, physical therapy, artificial limbs, eyeglasses, hearing aids, etc.? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Don't Remember

   IF YES, has the service(s) been useful to you?

   [1]Yes [2] No [3] Not Sure [4] No Opinion

   ---

4. Did your counselor arrange for you to have vocational training such as college, technical/trade school, on-the-job training, etc.? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Don't Remember

   IF YES, was the kind of training you received useful to you?

   [1]Yes [2] No [3] Not Sure [4] No Opinion

   ---

5. Did your counselor help you look for a job? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Don't Remember

   IF YES, was the help you received useful to you?

   [1] Yes [2] No [3] Not Sure [4] No Opinion

   ---

6. Were the services you received from the Vocational Rehabilitation program useful in helping you to perform your present work, homemaking, or family business duties? **[PLEASE CHECK ONE]**

   [1] Yes [2] No [3] Not Sure [4] No Opinion

7. Do we have your permission to discuss your responses with your counselor?

   [1] Yes, Put your initials here:_____ [2] No

Thank you for your help with this survey.

No._____
DVR-8042
REV. 01/90

VOCATIONAL REHABILITATION SERVICES FOLLOW-UP SURVEY

1. Which of the following statements best describes your present work situation? **[PLEASE CHECK ONLY ONE]**

   [1] I earn a wage or salary, either at a regular job or from self-employment.

   [2] I earn a wage or salary in a sheltered workshop.

   [3] I am a homemaker.

   [4] I work in a family farm or family business without pay.

   [5] I am not employed.

2. **IF NOT** employed, how many months has it been since you were employed? _____ months

IF YOU CHECKED RESPONSE 3, 4, OR 5 IN QUESTION 1, PLEASE SKIP QUESTIONS 3 AND 4

3. About how many hours a week do you work? _____ hours a week.

4. What are your present earnings, before any amount is taken out? **(PLEASE FILL IN THE BLANK AND CIRCLE YOUR PAY PERIOD)**

   $_____ per [1. hour / 2. week / 3. month / 4. year].

5. Enter number months you were **NOT** employed during the past year. _____

6. In the last month have you or any of your dependents received income from any type of public assistance? **[PLEASE CHECK ONLY ONE]**

   [1] Yes

   [2] No

   [3] I don't remember

7. Do we have your permission to discuss your responses with your counselor?

   [1] Yes, Put your initials here:_____

   [2] No

Thank you for your help with this survey.

Appendix F

Table F-1

Characteristics of Populations from which satisfaction and benefits retention survey samples were drawn

Client Characteristics	Rehabilitated and Non-Rehabilitated FFY '93[a] (13,797)		Rehabilitated Only FFY '92[b] (8,438)	
	Number	Percent	Number	Percent
Age: Less than 20	3,373	24.4	1,844	21.9
20 - 34	5,495	39.8	3,437	40.7
35 - 44	3,018	21.9	1,869	22.1
45 - 64	1,889	13.7	1,256	14.9
65+	22	0.2	32	0.4
Sex: Male	7,864	57.0	4,750	56.3
Female	5,933	43.0	3,688	43.7
Disability Classification:				
Non-Severe	4,216	30.6	3,101	36.8
Severe	9,581	69.4	5,337	63.2
Disability:				
Visual	45	0.3	22	0.3
Hearing	450	3.3	336	4.0
Orthopedic	2,533	18.4	1,622	19.2
Absence/Amputation	139	1.0	82	1.0
Mental Illness	5,313	38.5	2,984	35.4
Mental Retardation	1,871	13.6	1,174	13.9
Other (NEC)	3,303	23.9	2,139	25.3
Brain Injured	96	0.7	79	0.9

(Continued next page)

Appendix F

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Brain Injured	96	0.7	79	0.9

(Continued next page)

Table F-1 (Continued)

Population demographics: Persons closed rehabilitated and non-rehabilitated FFY '93 and persons closed rehabilitated FFY '92

Client Characteristics	Rehabilitated and Non-Rehabilitated FFY '93[a] (13,797)		Rehabilitated Only FFY '92[b] (8,438)	
	Number	Percent	Number	Percent
Grade Completed:				
01 - 08	1,321	9.6	789	9.4
09 - 12	9,529	69.1	5,787	68.6
Special Ed.	1,416	10.3	888	10.5
13+	1,531	11.1	974	11.5
Closure Status:				
26(Rehabilitated)	8,574	62.1	8,438	100.0
28(Not Rehabilitated)[c]	5,053	36.6	---	---
30(Not Rehabilitated)[d]	170	1.2	---	---

[a]Population from which the Satisfaction Survey Sample was drawn.

[b]Population from which the Benefits Retention Survey Sample was drawn.

[c]Individualized Written Rehabilitation Plan services initiated.

[d]Individualized Written Rehabilitation Plan services not initiated.

Appendix G

Basis of Comparison: average weekly earnings for the FFY 1992 sample of consumers closed Status 26 who had earnings at closure (N = 648), with average weekly earnings of the general population.

VR Consumers at Closure:	Weekly earnings were grouped and averaged within the First digit DOT job category (Source: Client Master File).
VR Consumers at Follow-up:	Average weekly earnings at closure within the occupational family plus the average percent increase in weekly earnings from closure to follow-up, i.e., 19%: (Mean weekly earn closure) + (mean weekly earn closure x .19) = occupational group average weekly earn at follow-up.
Work Disabled (16-64 YOA):	Sixty-four percent of general population earnings. Source: US Bureau of the Census. (1989). Labor Force Status and Other Characteristics of Persons with a Work Disability: 1981 to 1988 (Current Population Reports, Series P-23, No. 160). Washington, DC: US Government Printing Office.
General Population:	Weekly earnings were grouped and averaged within the Standard Industrial Classification (SIC) code which classified businesses by their primary activity according to insured employment and wages reports (private coverage only). (Source: Employment and Wages in North Carolina, 1992. Employment Security Commission, Labor Market Information Division) The SICs used were those that were judged to match clients' DOT occupational category and job titles.

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